MAIN FILE

CK ASSOCIATES
Environmental Consultants

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BATON ROUGE, LA 70810
PHONE (225) 755-1000
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LDEQ RECEIPT
2018 JUN 29 PM 4:08

HOUSTON, TX
PHONE (281) 397-9016
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LAKE CHARLES, LA
PHONE (337)625-6577
FAX (337)625-6580

SHREVEPORT, LA
PHONE (318) 797-8636
FAX (318) 798-0478

HAND DELIVERED

June 29, 2018

Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Division
602 North Fifth Street
Baton Rouge, Louisiana 70802

original to IOA
copy to O&G | Jheegala

Re: Small Source Permit Modification Application
Thermaldyne, LLC – Port Allen Facility
Agency Interest Number 198467 ✓
Permit Number 3120-00116-00
CK Project Number 14764

PER20180002

Dear Administrator:

On behalf of Thermaldyne, LLC (Thermaldyne), CK Associates is submitting the enclosed Small Source Permit Modification Application. The facility is a minor source of criteria pollutants and of Chapter 51 toxic air pollutants and is currently permitted under Permit No. 3120-00116-00 issued November 16, 2015.

As required by the Louisiana Department of Environmental Quality (LDEQ), Thermaldyne is submitting three copies of this permit application. A check in the amount of $500 (Fee Code 1722) is also included to cover the review fees.

If you have any questions or would like further information, please contact Richard Cates of Thermaldyne at (337) 288-4600 or me at (225) 755-1000.

Sincerely,
CK Associates

Kerry Brouillette
Air Quality Program Manager

RECEIVED
JUN 29 2018
BY:

Enclosures: As stated

cc: Richard Cates – Thermaldyne

Monday, July 02, 2018
1:00:26 PM

RECEIPT OF CHECK

Master AI #:	198467
Name on Check:	CK Associates, LLC
Master File Name:	Thermaldyne LLC - Port Allen Facility
Check Received Date:	6/29/2018
Check Date:	6/29/2018
Check Number:	52566
Check Amount ($):	$500.00
Staff Entry:	SUNSHINEM
Date data entered:	7/2/2018
Media:	AIR
Reason:	Modification

Comments:

SMALL SOURCE PERMIT MODIFICATION APPLICATION

Thermaldyne, LLC
Port Allen, Louisiana
West Baton Rouge Parish
Agency Interest No. 198467

June 2018

Prepared by:

17170 Perkins Road
Baton Rouge, LA 70810
225-755-1000

CK Project Number: 14764

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1.0 INTRODUCTION

Port Allen Land, LLC (PAL) applied for a small source permit in March of 2015 for a recovery/recycling facility to be located in West Baton Rouge Parish. Consequently, Small Source Permit No. 3120-00115-00 was issued on May 4, 2015. In August of 2015, an application was submitted to modify the permitted location of the facility. Permit No. 3120-00115-00 was terminated and Permit No. 3120-00116-00 was issued, both effective November 16, 2015. On May 3, 2016, Permit No. 3120-00116-00 was transferred from PAL to Thermaldyne, LLC (Thermaldyne) for the Port Allen Facility.

Thermaldyne owns and will operate the Port Allen Facility. The facility reclaims oil from oil-bearing hazardous secondary materials (OBHSM) by utilizing a 3-phase centrifuge process and an indirect thermal desorption (ITD) process. The OBHSM consists of sludges, byproducts, spent or other oil-bearing materials generated at petroleum refineries and related oil and gas operations such as pipeline systems and tank terminals. The oil that is reclaimed is returned to petroleum refineries for reinsertion into the refining process or sold as fuel in the fuel blending market. The permitted site is on approximately 28.2 acres at 2325 North Line Road in Port Allen, Louisiana in West Baton Rouge Parish. A Site Location Map is provided as Figure 1.

This Application for Approval of Emissions of Air Pollutants (AAEAP) from Minor Sources (Section 2.0) is being submitted by Thermaldyne for a modification of the permit to incorporate design changes. The facility meets the definition of small source: a facility that has the potential to emit less than 25 tons per year of any criteria pollutant, less than 10 tons per year of any toxic air pollutant, and is not otherwise considered a major source.

1.1 Process Description

Processing within Material Handling Building

All OBHSM will be unloaded within the Material Handling Building into either the Liquids Containment Area (Low Solids OBHSM) or within the Solids Containment Area (High Solids OBHSM).

The Liquids Containment Area consists of a concrete lined pit and a dewatering unit (a High Gravity linear shaker). The Liquids Containment Area is located in the northeast corner of the Material Handling Building. The Low Solids OBHSM will be unloaded into the Liquids Containment Area Pit then transferred via submersible pump into the dewatering unit (a High Gravity linear shaker). The liquid stream from the dewatering unit will be transferred via pipe to the Thermal Pad for processing in the centrifuge

system. The solid stream from the dewatering unit will be transferred via front loader to the Solids Containment Area.
The Solids Containment Area consists of that portion of the Material Handling Building not occupied by the Liquids Containment Area or other structures. The High Solids OBHSM will be unloaded within the Solids Containment Area and transferred via an auger conveyor to the Thermal Desorption Unit (TDU) for processing.

Air inside the Material Handling Building will be controlled by carbon canisters using induced draft. The control system is designed to operate with better than 75% capture and 99% control efficiency.

OBHSM will be stored within suitable physical enclosures provided with appropriate dust/vapor control measures to prevent and minimize potential fugitive emissions. Dust curtains will be used to contain potential fugitive releases, preventing release of particulate matter outside of the product receiving building. When totally enclosed, the building will operate under negative pressure.

Processing on Thermal Pad

OBHSM will be processed on the Thermal Pad in the centrifuge system and the TDU. The centrifuge system will separate the Low Solids OBHSM into individual streams: water, oil, and solids. The water will be processed through the wastewater treatment plant (also located on the Thermal Pad). The oil will be collected in tanks or containers. The solids will be conveyed to the Solids Containment Area (located in the Material Handling Building) prior to conveyance into the TDU for further reclamation.

Low Solids OBHSM

Low Solids OBHSM consists of mostly water (i.e., 70 – 90%) with the remaining mixture consisting of various oil and solids. Low Solids OBHSM is typically received in vacuum trucks or vacuum containers and pumped into the Liquids Containment Area.

The Liquids Containment Area will include a concrete lined pit with a capacity of approximately 28,726 gallons. The Liquid Containment Area, including the pit, will be located within the Material Handling Building to prevent rainwater from coming into contact with the material.

The OBHSM will be transferred from the pit to the dewatering system via a submersible slurry pump for screening through a High Gravity linear shaker. The liquid stream from the dewatering unit will be transferred via pipe to the Thermal Pad for processing in the centrifuge system. The solid stream from the dewatering unit will be transferred via front loader to the Solids Containment Area.

High Solids OBHSM

High Solids OBHSM consists of mostly solids (i.e., 40 – 70%), with the remaining volume consisting of oil and water. High Solids OBHSM are typically received in roll-off boxes or other containers. High Solids OBHSM will be offloaded into the Solids Containment Area and transferred via an auger conveyor to the TDU for processing.

Centrifuge Process

All Low Solids OBHSM will be screened over a High Gravity linear shaker and then fed to one of three 3-phase tricanting centrifuges. Water, oil, and solids will be separated into individual streams. The water will be processed through the wastewater treatment plant and then discharged or disposed. The solids will be conveyed to the TDU for further processing and recovery.

Thermal Desorption Process

Thermaldyne will use an indirect TDU to reclaim the OBHSM. Indirect thermal desorption is a non-incineration technology designed to separate hydrocarbons from various matrices including oilfield waste, soil, sludge, sand, filter cake, tank and tanker bottoms, and contaminated soil. Thermaldyne will limit OBHSM that it receives to that generated at petroleum refineries and related oil and gas operations such as pipeline systems and tank terminals. This proven thermal desorption technology is currently used to reclaim oil from oil-containing materials within petroleum refineries and at numerous commercial facilities.

In the indirect heating process, heat is applied to the exterior of the heating chamber and is transferred through the wall of the chamber to the OBHSM. Neither the burner flame nor the combustion gases come in contact with the OBHSM or the off-gases. This type of TDU is designed to maximize the recovery of the volatilized contaminants from the off-gases.

Feed System

The main components of the feed system will include single or dual-feed hoppers for material storage. The hoppers are furnished with variable speed screw auger systems in the bottom for discharge of difficult to convey material. Feed hoppers will be loaded using a front-end loader or crane operated clam-shell type bucket.

After material is discharged from a hopper, it travels via single or dual enclosed conveyors to the inlet of the TDU. The TDU feed rate is controlled by adjusting the speed of the rotation of the screw-auger system in the feed hopper bottom while all other conveying components operate at constant speed. Material preparation and pre-

treatment might be necessary during certain projects to assure good material conveying and oil reclamation.

Indirectly Heated Rotary Drum

The primary function of the indirectly heated rotary drum is to vaporize the hydrocarbons and the moisture from the incoming material. The indirectly heated drum is designed to operate at temperatures ranging from 1,200°F –1,600°F. The rotary drum is heated from outside where several burners provide the necessary process heat. The natural gas-fired unit will operate at up to 18 MMBTU per hour. The rotary drum shell material and the furnace burner capacity are designed to elevate the OBHSM temperature up to 900°F, although these higher operating temperature ranges are rarely necessary for material processing under normal conditions. The drum's material inlet and discharge are controlled via two airlocks designed to minimize air (oxygen) leakage into the drum. The inlet and discharge end of the rotary drum are equipped with custom designed seals to prevent air leakage.

During the reclamation process, as the OBHSM progresses through the rotary drum, the hydrocarbons and water undergo the evaporation (desorption) process while generating very dry solid residuals. The processed solids are conveyed at a high temperature into a conveyor where it is mixed with water for cooling before being discharged. The desorbed vapors are transported from the rotary drum into the system's Vapor Recovery Unit (VRU).

Vapor Recovery Unit

The main function of the VRU is to condense and recover the desorbed hydrocarbons, water vapor, and the solid particles present in the gas stream exiting the rotary drum. The VRU includes several main components including a quench section, venturi scrubber, separator, mist eliminator section, induced draft fan, and condenser. In the quench section, the gas stream is cooled by direct contact with finely atomized water droplets via multiple nozzles. The water spray system also removes additional solids from the gas stream.

As the gas temperature is reduced, most of the hydrocarbons are condensed before gases exit the quench section. The VRU is equipped with an integrated variable throat Venturi scrubber which removes fine solid particles from the gas stream. The dust-laden gas stream and the process water collide, dispersing the liquid into droplets that the particles impact and become entrapped within. These droplets, containing the fine solid particles, are removed from the gas stream in a horizontal cyclonic separator downstream of the Venturi scrubber.

The gas exiting the cyclonic separator passes through a mist eliminator to remove entrained water droplets before reaching the system ID fan. The process ID fan is equipped with a variable speed controlled drive, designed to maintain sufficient draft through the system to continuously transfer the vent gas through the process and control equipment. After the vent gas reaches the condenser (indirect heat exchanger), the gas temperature is reduced to less than 300°F to remove residual hydrocarbon vapors (the lighter hydrocarbons) from the gas stream.

After gas exits the condenser, it is routed through a flame arrester before being discharged into the thermal oxidizer for final polishing prior to discharge to the atmosphere.

Process Water System and Treatment

The condensates, residual fines/sediments, and water collected inside the VRU will be treated in an above ground API-type primary oil/water separator equipped with a fixed cover for VOC emission control. The recovered oil is collected using a stationary skimmer and is continuously pumped into an above ground storage tank. The recovered sediments/sludge is pumped from the API separator using a pneumatic pump and is recycled back into the TDU process. After the oil and suspended solids are removed from the influent in the API separator, the middle phase (water) is then pumped to an on-site storage tank for recycling.

A portion of the recovered water is pumped into a plate and frame heat exchanger where it is cooled and reused as cooling process water for the VRU. The cooling media for the plate and frame heat exchanger is also water. A portion of the water recaptured in the process will be processed through the wastewater treatment plant and also used to rehydrate residue from the thermal process. Water not recycled into the reclamation process and contact stormwater will be collected in containers (e.g., frac tanks) prior to treatment in its onsite wastewater treatment system.

Four package boilers will be utilized to generate steam (one on stand-by) for use in heating the heavier sludge materials to increase the ability to move these through the process.

Non-specified area sources can generate fugitive emissions from equipment that is in potential VOC service. These emissions are very small. Other emissions are from insignificant activities.

1.2 Proposed Modifications

This proposed action fits the definition of a minor modification as per LAC 33:III.525.A. Thermaldyne is requesting that minor modification procedures be used when processing this permit application. With this modification application, Thermaldyne is proposing several changes, described below.

Thermaldyne proposes to change the description of UNF 0001 from PAL LLC – Entire Facility-Port Allen Land, LLC to Thermaldyne, LLC – Entire Facility.

Thermaldyne proposes to change the description of CON 0002 from TDU Oxidizer Vent to Thermal Oxidizer.

Thermaldyne proposes to delete CON 0001, CSTK-1 – TDU Oxidizer/Desorber Common Stack to remove permitting of a common stack. The emissions that are currently permitted under CON 0001 are now proposed to be permitted under CON 0002, 1-2015 – Thermal Oxidizer and EQT 0008, 2-2015 – Desorber Heater (separate stacks).

There are no proposed changes to the Desorber Heater emission rates. The Thermal Oxidizer (CON 0002) is now proposed to only control the TDU Desorber Vent (EQT 0001) whereas in the current permit, CON 0002 controls:

- EQT 0001, 1-2015(a) – TDU Desorber Vent;
- EQT 0002, 1-2015(b) – Oil/Water Separator;
- EQT 0003, 1-2015(ca) – TK-1;
- EQT 0004, 1-2015(cb) – TK-2;
- EQT 0005, 1-2015(cc) – TK-3;
- EQT 0006, 1-2015(cd) – TK-4; and
- EQT 0007, 1-2015(ce) – TK-5.

Tanks 1-5 (EQT 0003 through EQT 0007, TK-1 through TK-5) are proposed to be deleted. These tanks are permitted for product, water treatment, mixing, and diesel. In the place of the product, mixing, and diesel tanks, Thermaldyne proposes to add the following atmospheric tanks:

- EQT TBD, 12-2018 - Product Tank No. 1;
- EQT TBD, 13-2018 - Product Tank No. 2;
- EQT TBD, 14-2018 - Oil Tank No. 1;
- EQT TBD, 15-2018 - Water Tank No. 1;
- EQT TBD, 16-2018 - Water Tank No. 2 (from Centrifuge);
- EQT TBD, 17-2018 - Oil Tank No. 2 (from Centrifuge);
- EQT TBD, 18-2018 - Blending Tank No. 1;
- EQT TBD, 19-2018 - Blending Tank No. 2;
- EQT TBD, 20-2018 - Process Tank No. 1;

- EQT TBD, 21-2018 - Process Tank No. 2; and
- EQT TBD, 22-2018 - Process Tank No. 3.

EQT 0002, 1-2015(b) – Oil/Water Separator is proposed to change to EQT 0002, 11-2018 – Wastewater Treatment System. Included with the system will be replacement tanks for EQT 0004 and EQT 0005 mentioned above that are currently permitted for water treating chemicals.

Thermaldyne proposes to rename EQT 0011, 6-2015 – Package Boiler to Package Boiler No. 1 and to add the following sources:

- EQT TBD, 7-2018 – Package Boiler No. 2;
- EQT TBD, 8-2018 - Package Boiler No. 3; and
- EQT TBD, 9-2018 - Package Boiler No. 4.

The following emission point sources are also proposed to be added:

- EQT TBD, 10-2018 - Material Handling Building;
- EQT TBD, 23-2018 - Roll-off Boxes;
- EQT TBD, 24-2018 - TDU Solids Loading;
- EQT TBD, 25-2018 - Finished Catalyst Loading;
- EQT TBD, 26-2018 - Catalyst Solids Loading;
- EQT TBD, 27-2018 – Catalyst Screening;
- EQT TBD, 28-2018 - Processed Solids Discharge Conveyor; and
- EQT TBD, 29-2018 - Emergency Diesel Generator.

Thermaldyne proposes to delete EQT 0010, 5-2015 – Baghouse. Material handling located in the Material Handling Building (EQT TBD, 10-2018) is proposed to be controlled with capture (75% efficiency) and scrubber/carbon bed control (99% efficiency).

There are no proposed changes to the fugitives (FUG 0001, 3-2015 – Fugitive Emissions) or loading (EQT 0009, 4-2015 – Loading Emissions) emission rates.

Thermaldyne proposed to increase the number of tank cleanings for the current permitted GCXVII Activity and add carbon bed maintenance and strainer maintenance. New Insignificant Activities proposed are two (2) diesel tanks per LAC 33:III.501.B.5.A.3.

1.3 Regulatory Applicability

Section 19 of the AAEAP contains the air quality requirements for the affected sources included in this minor source permit modification application.

Thermaldyne requests removal of LAC 33:III.1311.C from CON 0002, EQT 0008, and EQT 0011 and the addition of LAC 33:III.1313.C to CON 0002 and EQT 0011.

1.4 Proposed Emission Changes

With this modification, the facility will remain a minor source of regulated air pollutants. Tabulated emissions are provided in Table 1 below.

Table 1
Facility Emissions Summary

Pollutant	Permitted Emissions (tpy)	Proposed Emissions (tpy)	Net Change (tpy)
PM_{10}	4.57	1.52	-3.05
$PM_{2.5}$	4.57	1.50	-3.07
SO_2	0.14	0.13	-0.01
NO_x	11.81	20.15	8.34
CO	18.03	18.22	0.19
Total VOC	20.00	24.48	4.48

2.0 APPLICATION FOR APPROVAL OF EMISSIONS OF AIR POLLUTANTS FROM MINOR SOURCES

Department of Environmental Quality Office of Environmental Services Air Permits Division P.O. Box 4313 Baton Rouge, LA 70821-4313 (225) 219-3417	**LOUISIANA** **Application for Approval of Emissions of Air Pollutants from Minor Sources**	DEQ LOUISIANA

PLEASE TYPE OR PRINT

1. Facility Information [LAC 33:III.517.D.1]

Facility Name (if any) Port Allen Facility	
Agency Interest Number (A.I. Number) 198467	**Currently Effective Permit Number(s)** 3120-00116-00
Company - Name of Owner Thermaldyne, LLC	
Company - Name of Operator (if different from Owner)	
Parent Company (if Company – Name of Owner given above is a division)	

Ownership:
Check the appropriate box.

☐ corporation, partnership, or sole proprietorship ☐ regulated utility ☐ municipal government

☐ state government ☐ federal government ☒ other, specify LLC

2. Physical Location and Process Description [LAC 33:III.517.D.18, unless otherwise stated]

What does this facility produce? Add more rows as necessary.
This facility processes oil-bearing hazardous secondary materials for oil reclamation.

What modifications/changes are proposed in this application? Add more rows as necessary.
See Section 1.2 of the report text.

Nearest town (in the same parish as the facility): Port Allen

Parish(es) where facility is located: West Baton Rouge

Distance To (mi):	142 Texas	170 Arkansas	32 Mississippi	166 Alabama
Latitude of Facility Front Gate:	30 Deg	29 Min	26 Sec	0.3 Hundredths
Longitude of Facility Front Gate:	-91 Deg	13 Min	06 Sec	0.01 Hundredths

Add physical address and description of location of the facility below. If the facility has no address, provide driving directions. Add more rows as necessary.
2325 North Line Road, Port Allen, LA 70767

☒ Map attached (required per LAC 33:III.517.D.1)
☒ Description of processes and products attached (required per LAC 33:III.517.D.2)
☒ Introduction/Description of the proposed project attached (required per LAC 33:III.517.D.5)
☐ Evidence of compliance with local zoning ordinance for proposed location (required per LAC 33:III.513.C.1.a; for Portable Facilities only)

3. Confidentiality [LAC 33.I.Chapter 5]

Are you requesting confidentiality for any information except air pollutant emission rates? ☐ Yes ☒ No

If "yes," list the sections for which confidentiality is requested below. Add rows as necessary. Confidentiality requests require a submittal that is separate from this application. Information for which confidentiality is requested should not be submitted with this application. Consult instructions.

4. Type of Application [LAC 33:III.517.D]

Check all that apply.

☐ Minor Source ☐ Synthetic Minor Source ☒ Small Source ☐ Portable Facility
☐ Minor Source Oil & Gas General Permit (MSOG)* ☐ Minor Source Surface Coating and Fabrication General Permit (SCF)*
☐ Renewal
Select one, if applicable: ☐ Entirely new facility ☒ Modification or expansion of existing facility (may also include reconciliations) ☐ Reconciliation only

*Additional separate submittal required. See instructions for more details.

If "Portable Facility" was selected above, please enter the Make, Model, and Serial Number of each portable combustion emissions source to be permitted. Otherwise, leave blank. Do *NOT* list any motor vehicles. Add rows as necessary.

Make	Model	Serial Number

Does this submittal update or replace an application currently under review? ☐ Yes ☒ No

If yes, provide date that the prior application was submitted: _____

Select one if this application is for an existing facility that does not have an air quality permit:

☐ Previously Grandfathered (LAC 33:III.501.B.6)
☐ Previously Exempted (e.g., Small Source Exemption; LAC 33:III.501.B.2.d)
☐ Previously Unpermitted

5. Fee Information [LAC 33:III.517.D.17]

Fee Parameter: If the fee code is based on an operational parameter (such as number of employees or capital cost), enter that parameter here. _____

Industrial Category: Enter the Standard Industrial Classification (SIC) Codes that apply to the facility.

Primary SICC: 2992 **Primary NAICS Code:** 324191

Secondary SICC(s): _____

Project Fee Calculation: Enter fee code, permit type, production capacity/throughput, and fee amount pursuant to LAC 33:III.Chapter 2. Include with the application the amount in the Grand Total blank as the permit application fee.

FEE CODE	TYPE	EXISTING CAPACITY	INCREMENTAL CAPACITY INCREASE	*SURCHARGES*			
				MULTIPLIER	NSPS	AIR TOXICS	TOTAL AMOUNT
1722	Minor				☐	☐	$500
					GRAND TOTAL		$500

Optional **Fee Explanation:** Use the space provided to give an explanation of the fee determination displayed above.

Electronic Fund Transfer (EFT): If paying the permit application fee using an Electronic Fund Transfer (EFT), please include the EFT Transaction Number, the Date that the EFT was made, and the total dollar amount submitted in the EFT. If not paying the permit application fee using EFT, leave blank.

EFT Transaction Number	Date of Submittal	Total Dollar Amount
_____	_____	$_____

6. Key Dates

Estimated date construction will commence: On-going *Estimated date operation will commence:* 9/1/18

7. LAC 33:I.1701 Requirements – Answer all below for new sources and permit renewals - ☐ Yes ☒ No

Does the company or owner have federal or state environmental permits identical to, or of a similar nature to, the permit for which you are applying in Louisiana or other states? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.) ☐ **Yes** ☐ **No**

If yes, list States: _____

Do you owe any outstanding fees or final penalties to the Department? ☐ **Yes** ☐ **No**
If yes, explain below. Add rows if necessary.

_____

_____

_____

Is your company a corporation or limited liability company? ☐ **Yes** ☐ **No**
If yes, attach a copy of your company's Certificate of Registration and/or Certificate of Good Standing from the Secretary of State. The appropriate certificate(s) should be attached to the end of this application as an appendix.

8. Certification of Compliance With Applicable Requirements

Statement for Applicable Requirements for Which the Company and Facility Referenced In This Application Is In Compliance

Based on information and belief, formed after reasonable inquiry, the company and facility referenced in this application is in compliance with and will continue to comply with all applicable requirements pertaining to the sources covered by the permit application, as outlined in Tables 1 and 2 in the permit application. For requirements promulgated as of the date of this certification with compliance dates effective during the permit term, I further certify that the company and facility referenced in this application will comply with such requirements on a timely basis and will continue to comply with such requirements.

For corporations only: By signing this form, I certify that, in accordance with the definition of Responsible Official found in LAC 33:III.502, **(1)** I am a president, secretary, treasurer, or vice-president in charge of a principal business function, or other person who performs similar policy or decision-making functions; or **(2)** I am a duly authorized representative of such person; am responsible for the overall operation of one or more manufacturing, production, or operating facilities addressed in this permit application; and either the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or the delegation of authority has been approved by LDEQ prior to this certification.*

CERTIFICATION: I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Application for Approval of Emissions of Air Pollutants from Minor Sources, including all attachments thereto and the compliance statement above, are true, accurate, and complete.

a. Responsible Official		
Name Richard Cates		
Title President		
Company Thermaldyne, LLC		
Suite, mail drop, or division		
Street or P.O. Box 45 Maryeanna Drive		
City Atlanta	State Georgia	Zip 30342
Business phone 337-288-4600		
Email Address rcates@thermaldyne.com		

Signature of responsible official (See LAC 33:III.502):
Date: 6/26/18

*Approval of a delegation of authority can be requested by completing a Duly Authorized Representative Designation Form (Form_7218) available on LDEQ's website at http://deq.louisiana.gov/page/air-permit-applications

9. Personnel [LAC 33:III.517.D.1]

a. Manager of Facility who is located at plant site		
Name Richard Cates	☒Primary contact	
Title President		
Company Thermaldyne, LLC		
Suite, mail drop, or division		
Street or P.O. Box 45 Maryeanna Drive		
City Atlanta	**State** Georgia	**Zip** 30342
Business phone 337-288-4600	**Mobile Phone** 337-288-4600	
Email address rcates@thermaldyne.com		

b. On-site contact regarding air pollution control		
Name	☒Primary contact	
Title		
Company		
Suite, mail drop, or division		
Street or P.O. Box		
City	**State**	**Zip**
Business phone	**Mobile Phone**	
Email address		

c. Person to contact with written correspondence		
Name	☒Primary contact	
Title		
Company		
Suite, mail drop, or division		
Street or P.O. Box		
City	**State**	**Zip**
Business phone		
Email address		

d. Person who prepared this report		
Name	☒Primary contact	
Title		
Company		
Suite, mail drop, or division		
Street or P.O. Box		
City	**State**	**Zip**
Business phone		
Email address		

e. Person to contact about Annual Maintenance Fees	☒ a ☐ b ☐ c ☐ d ☐ other (specify below)	
Name	☒Primary contact	**Suite, mail drop, or division**
Title		**Street or P.O. Box**
Company	**City**	**State** / **Zip**
Business Phone	**Email Address**	

10. Proposed Project Emissions [LAC 33:III.517.D.3]

List the total emissions following the proposed project for this facility or process unit (for process unit-specific permits). Speciate all criteria pollutants, TAP, and HAP for the proposed project.

Pollutant	Proposed Emission Rate (tons/yr)
Particulate Matter (PM_{10})	1.52
Particulate Matter ($PM_{2.5}$)	1.50
Sulfur Dioxide (SO_2)	0.13
Nitrogen Oxides (NO_x)	20.15
Carbon Monoxide (CO)	18.22
Total VOC (includes those listed)	24.48
Carbon Dioxide (CO_2e)	22,166
Benzene	0.56
Biphenyl	0.002
1,3 Butadiene	0.002
Cresol	0.004
Cumene	0.003
Ethylbenzene	0.02
n-Hexane	0.11
Naphthalene	0.01
Phenol	0.002
PAH	0.002
Styrene	0.002
Toluene	0.14
1,2,4-Trichlorobenzene	0.03
2,2,4-Trimethylpentane	0.002
Xylenes	0.27

11. History of Permitted Emissions [LAC 33:III.517.D.18]

List each of the following in chronological order:

- The Permit Number and Date Action Issued for each air quality permit that has been issued to this facility or process unit (for process unit-specific permits) within the last ten (10) years.
- All small source exemptions, authorizations to construct, administrative amendments, case-by-case insignificant activities, and changes of tank service that have been approved since the currently effective Title V Operating Permit or State Operating Permit was issued to this facility or process unit (for process unit-specific permits). It is not necessary to list any such activities issued prior to the issuance of the currently effective Title V Operating Permit or State Operating Permit, if one exists.

Permit Number	Date Action Issued
3120-00115-00	5/4/2015 Permit was terminated 3/14/16
3120-00116-00	3/14/16

12.a. Enforcement Actions [LAC 33:III.517.D.18]- ☐ Yes ☒ No

If yes, list all federal and state air quality enforcement actions, settlement agreements, and consent decrees received for this facility since the issuance of the currently effective Title V Operating Permit or State Operating Permit. For each action, list the type of action (or its tracking number), the regulatory authority or authorities that issued the action, and the date that the action was issued. Summarize the conditions imposed by the enforcement action, settlement agreement, and consent decree in Section 19, Table 2. It is not necessary to submit a copy of the referenced action. Add rows to table as necessary.

Type of Action or Tracking Number	Issuing Authority	Date Action Issued	Summary of Conditions Included?
			☐ Yes ☐ No
			☐ Yes ☐ No

12.b. Schedule for Compliance [LAC 33:III.517.D.16] ☐ Yes ☒ No

If the facility for which application is being made is not in full compliance with all applicable regulations, give a description of how compliance will be achieved, including a schedule for compliance below. Add rows as necessary. See instructions.

13. Letters of Approval for Alternate Methods of Compliance- ☐ Yes ☒ No

If yes, list all correspondence with LDEQ, EPA, or other regulatory bodies that provides for or supports a request for alternate methods of compliance with any applicable regulations for this facility. List the date of issuance of the letter and the regulation referenced by the letter. **Attach as an appendix a copy of all documents referenced in this table.** Letters that are not included may not be incorporated into a final permit. Add rows to table as necessary.

Date Letter Issued	Issuing Authority	Referenced Regulation(s)	Copy of Letter Attached?
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

14. Initial Notifications and Performance Tests [LAC 33:III.517.D.18] - ☐ Yes ☒ No

If yes, list any initial notifications that have been submitted or one-time performance tests that have been performed for this facility since the issuance of the currently effective Title V Operating Permit or State Operating Permit in order to satisfy regulatory requirements. Any initial notification or one-time performance test requirements that have not been satisfied should be listed in Section 19, Table 2 of this application. Any notifications or performance tests that recur periodically should also be properly noted in Section 19, Table 2 of this application. Add rows to table as necessary.

Initial Notification or One-time Performance Test?	Regulatory Citation Satisfied	Date Completed/Approved

15. Air Quality Dispersion Modeling [LAC 33:III.517.D.15]

Was Air Quality Dispersion Modeling as required by LAC 33:III performed in support of this permit application? (Air Quality Dispersion Modeling is required when requested by LDEQ.)

☐ **Yes** ☒ **No**

*Has Air Quality Dispersion Modeling completed in accordance with LAC 33:III ever been performed for this facility in support of an air permit application previously submitted for this facility or as required by other regulations **AND** approved by LDEQ?*

☐ **Yes** ☒ **No**

If yes, enter the date the most recent Air Quality Dispersion Modeling results as required by LAC 33:III were submitted:

_____

If the answer to either question above is "yes," enter a summary of the most recent results in the following table. If the answer to both questions is "no," enter "none" in the table. Add rows to table as necessary.

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Standard or (National Ambient Air Quality Standard (NAAQS))

16. General Condition XVII Activities [LAC 33:III.537]- ☒ Yes ☐ No

Enter all activities that qualify as Louisiana Air Emissions Permit General Condition XVII Activities.

- Expand this table as necessary to include all such activities.
- See instructions to determine what qualifies as a General Condition XVII Activity.
- Do not include emissions from General Condition XVII Activities in the proposed emissions totals for the permit application.
- The "Schedule" blank for each proposed General Condition XVII Activity is a **required** entry.

		Emission Rates – TPY					
Work Activity	**Schedule**	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**	**Other**
Tank Cleaning	Twenty per year					3.03 tpy	
Carbon Bed Maintenance	Twice per month					0.12 tpy	
Strainer Maintenance	Once per month					0.04 tpy	

17. Insignificant Activities [LAC 33:III.501.B.5] - ☒ Yes ☐ No

Enter all activities that qualify as Insignificant Activities.

- Expand this table as necessary to include all such activities.
- For sources claimed to be insignificant based on size or emission rate (LAC 33:III.501.B.5.A), information must be supplied to verify each claim. This may include but is not limited to operating hours, volumes, and heat input ratings.
- If aggregate emissions from all similar pieces of equipment claimed to be insignificant are greater than 5 tons per year for any pollutant, then the activities can not be claimed as insignificant and must be represented as permitted emission sources. Aggregate emissions shall mean the total emissions from a particular insignificant activity or group of similar insignificant activities (e.g., A.1, A.2, etc.) within a permit per year.

Emission Point ID No.	Description	Physical/Operating Data	Citation
IA No. 1	Diesel Tank	1,000 gal	LAC 33:III.501.B.5.A.3
IA No. 2	Diesel Tank	250 gal	LAC 33:III.501.B.5.A.3

18. Regulatory Applicability for Commonly Applicable Regulations – Answer all below [LAC 33:III.517.D.10]

Does this facility contain asbestos or asbestos containing materials? ☐ **Yes** ☒ **No**
If "yes," the facility or any portion thereof may be subject to 40 CFR 61, Subpart M, LAC 33:III.Chapter 27, and/or LAC 33:III.5151, and this application must address compliance as stated in Section 19 of this application.

Is the facility represented in this permit subject to 40 CFR 68? ☐ **Yes** ☒ **No**
If "yes," the entire facility is subject to 40 CFR 68 and LAC 33:III.Chapter 59, and this application must address compliance as stated in Section 19 of this application.

Is the facility listed in LAC 33:III.5611?

Table 5 ☐ **Yes** ☒ **No**

Table 6 ☐ **Yes** ☒ **No**

Table 7 ☐ **Yes** ☒ **No**

Does the applicant own or operate commercial refrigeration equipment normally containing more than 50 pounds of refrigerant at this facility? ☐ **Yes** ☒ **No**
If "yes," the entire facility is subject to 40 CFR 82, Subpart F, and this application must address compliance as stated in Section 19 of this application.

19. Applicable Regulations, Air Pollution Control Measures, Monitoring, and Recordkeeping

Important points for Table 1 [LAC 33:III.517.D.10]:

- List in Table 1, by Emission Point ID Number and Descriptive Name of the Equipment, state and federal pollution abatement programs and note the applicability or non-applicability of the regulations to each source.
- Adjust the headings for the columns in Table 1 as necessary to reflect all applicable regulations, in addition to any regulations that do not apply but require an explanation to substantiate this fact.
- For each piece of equipment, enter "1" for each regulation that applies. Enter "2" for each regulation that applies to this type of source, but from which this source of emissions is exempt. Enter "3" for equipment that is subject to a regulation, but does not have any applicable requirements. Also, enter "3" for each regulation that has applicable requirements that apply to the particular emission source, but the regulations currently do not apply due to meeting a specific criterion, such as it has not been constructed, modified, or reconstructed since the regulations have been in place.
- Leave the spaces blank when the regulations clearly would not apply under any circumstances to the source. For example, LAC 33:III.2103 – Storage of Volatile Organic Compounds would never apply to a steam generating boiler, no matter the circumstances.
- Consult instructions.

Important points for Table 2 [LAC 33:III.517.D.10]:

- For each piece of equipment listed in Table 2, include all applicable limitations, recordkeeping, reporting, monitoring, and testing requirements. Also, include any one-time notification or one-time performance test requirements that have not been fulfilled.
- Each of these regulatory aspects (limitations, recordkeeping, reporting, etc.) should be addressed for each regulation that is applicable to each emissions source or emissions point.
- For each regulation that provides a choice regarding the method of compliance, indicate the method of compliance that will be employed. It is not sufficient to state that all compliance options will be employed, though multiple compliance options may be approved as alternative operating scenarios.
- Consult instructions.

Important points for Table 3 [LAC 33:III.517.D.16]:

- Each time a 2 or a 3 is used to describe applicability of a source in Table 1, an entry should be made in Table 3 that explains the exemption or non-applicability status of the regulation to that source.
- Fill in all requested information in the table.
- The exact regulatory citation that provides for the specific exemption or non-applicability determination should be entered into the "Citation Providing for Exemption or Non-applicability" column.
- Consult Instructions.

Important points for Table 4 [LAC 33:III.517.D.18]:

- List any single emission source that routes its emissions to another point where these emissions are commingled with the emissions of other sources before being released to the atmosphere. Do not list any single emission source in this table that does not route its emissions in this manner.
- List any and all emission sources that are routed as described above. This includes emission sources that do not otherwise appear in this permit application.
- Consult instructions.

TABLE 1: APPLICABLE LOUISIANA AND FEDERAL AIR QUALITY REQUIREMENTS
Thermaldyne, LLC - Port Allen Facility
West Baton Rouge Parish, Louisiana

Source ID No.:	Descriptive Name of the Source	LAC 33:III.Chapter										LAC 33:III.				
		5	9	11	13	15	22	29	51	56	59	2103	2109	2113	2115	2121
UNF 0001	Thermaldyne, LLC - Entire Facility	1	1	1	1		1		3	1	3			1	3	3
CON 0002	1-2015 - Thermal Oxidizer	1		1	1	3	2									
EQT 0001	1-2015(a) - TDU Desorber Vent															
EQT 0002	11-2018 - Wastewater Treatment Plant												2			
EQT 0008	2-2015 - Desorber Heater			1	1	3	2									
EQT 0011	6-2015 - Package Boiler No. 1			3	1	3	2									
EQT TBD	7-2018 - Package Boiler No. 2			3	1	3	2									
EQT TBD	8-2018 - Package Boiler No. 3			3	1	3	2									
EQT TBD	9-2018 - Package Boiler No. 4			3	1	3	2									
EQT TBD	10-2018 - Material Handling Building		1												2	
EQT TBD	10-2018(a) - Low Solids OBHSM Pit														2	
EQT TBD	10-2018(b)- Dewatering Unit														2	
EQT TBD	10-2018(c) - Solids Containment Area														2	
EQT TBD	10-2018(d) - Cleaning of Trucks & Roll-off Boxes														2	
EQT TBD	12-2018 - Product Tank No. 1											3				
EQT TBD	13-2018 - Product Tank No. 2											3				
EQT TBD	14-2018 - Oil Tank No. 1											3				
EQT TBD	15-2018 - Water Tank No. 1											3				
EQT TBD	16-2018 - Water Tank No. 2 (from Centrifuge)											3				
EQT TBD	17-2018 - Oil Tank No. 2 (from Centrifuge)											3				
EQT TBD	18-2018 - Blending Tank No. 1											3				
EQT TBD	19-2018 - Blending Tank No. 2											3				
EQT TBD	20-2018 - Process Tank No. 1											3				
EQT TBD	21-2018 - Process Tank No. 2											3				
EQT TBD	22-2018 - Process Tank No. 3											3				
EQT TBD	23-2018 - Roll-off Boxes				1											
EQT TBD	24-2018 - TDU Solids Loading				1											
EQT TBD	25-2018 - Finished Catalyst Loading				1											
EQT TBD	26-2018 - Catalyst Solids Loading				1											
EQT TBD	27-2018 - Catalyst Screening				1											
EQT TBD	28-2018 - Processed Solids Discharge Conveyor				1											
EQT TBD	29-2018 - Emergency Diesel Generator			1	1	3	2									

TABLE 1: APPLICABLE LOUISIANA AND FEDERAL AIR QUALITY REQUIREMENTS
Thermaldyne, LLC - Port Allen Facility
West Baton Rouge Parish, Louisiana

Source ID No.:	Descriptive Name of the Source	40 CFR 60						40 CFR 61		40 CFR 63			40 CFR		
		A	D	Db	Dc	Kb	IIII	A	FF	A	VV	ZZZZ	64	68	82
UNF 0001	Thermaldyne, LLC - Entire Facility												3	3	3
CON 0002	1-2015 - Thermal Oxidizer		3	3	3										
EQT 0001	1-2015(a) - TDU Desorber Vent														
EQT 0002	11-2018 - Wastewater Treatment Plant														
EQT 0008	2-2015 - Desorber Heater		3	3	3										
EQT 0011	6-2015 - Package Boiler No. 1				3										
EQT TBD	7-2018 - Package Boiler No. 2				3										
EQT TBD	8-2018 - Package Boiler No. 3				3										
EQT TBD	9-2018 - Package Boiler No. 4				3										
EQT TBD	10-2018 - Material Handling Building														
EQT TBD	10-2018(a) - Low Solids OBHSM Pit														
EQT TBD	10-2018(b)- Dewatering Unit														
EQT TBD	10-2018(c) - Solids Containment Area														
EQT TBD	10-2018(d) - Cleaning of Trucks & Roll-off Boxes														
EQT TBD	12-2018 - Product Tank No. 1					3									
EQT TBD	13-2018 - Product Tank No. 2					3									
EQT TBD	14-2018 - Oil Tank No. 1					3									
EQT TBD	15-2018 - Water Tank No. 1					3									
EQT TBD	16-2018 - Water Tank No. 2 (from Centrifuge)					3									
EQT TBD	17-2018 - Oil Tank No. 2 (from Centrifuge)					3									
EQT TBD	18-2018 - Blending Tank No. 1					3									
EQT TBD	19-2018 - Blending Tank No. 2					3									
EQT TBD	20-2018 - Process Tank No. 1					3									
EQT TBD	21-2018 - Process Tank No. 2					3									
EQT TBD	22-2018 - Process Tank No. 3					3									
EQT TBD	23-2018 - Roll-off Boxes														
EQT TBD	24-2018 - TDU Solids Loading														
EQT TBD	25-2018 - Finished Catalyst Loading														
EQT TBD	26-2018 - Catalyst Solids Loading														
EQT TBD	27-2018 - Catalyst Screening														
EQT TBD	28-2018 - Processed Solids Discharge Conveyor														
EQT TBD	29-2018 - Emergency Diesel Generator	1					1					1			

KEY:

1 The regulations have applicable requirements, which apply to this particular emission source. The emissions source may have an exemption from the control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 The regulations have applicable requirements, which may apply to this particular emissions source, but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has been constructed, modified, or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.